

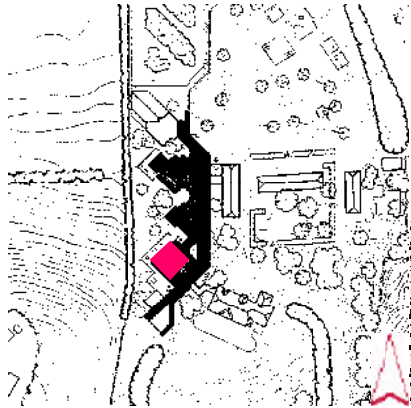
Kolding, Denmark

predominantly cloudy

**advanced roof-lights**



The main feature of this one story art-museum, is a wall that cuts across the site on the northern slopes of Kolding Fjord. The floor of the exhibition area follows the slope of the terrain, while the vaulted ceiling remains on the same level increasing the ceiling height as one moves through the building.



The Trapholt-Art-Museum is situated in a park in Kolding.



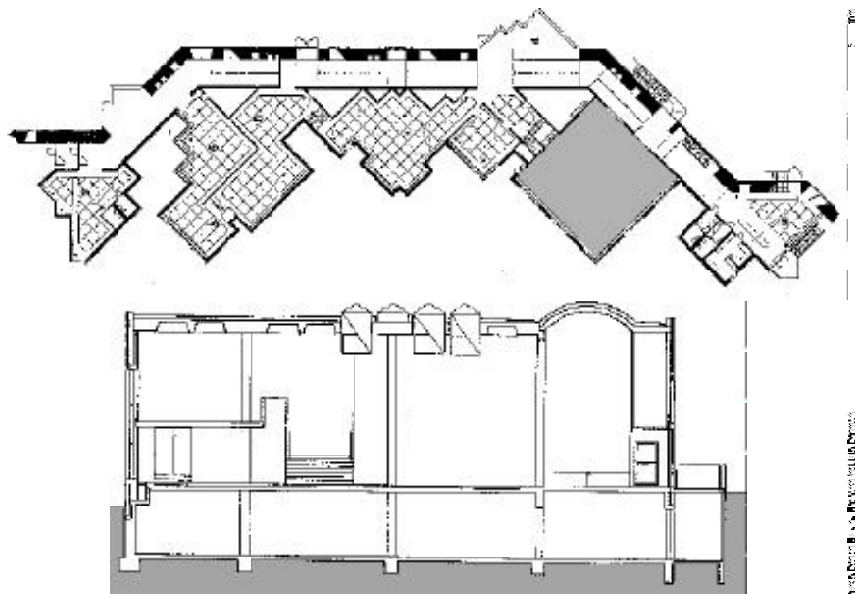
The rooflights are exposed to the sky without significant obstructions.



The architectural solutions in the design of the galleries provide great variations in shape and size and fulfill the aims to increase amenity for the visitors exploring the works of art displayed. The lighting design uses fairly simple and inexpensive daylighting technology to enhance the quality of daylight. The design of the windows and skylights reflects the size of the items exhibited. This is fulfilled by the principal rule where isolated, minor individual works, applied arts, furniture, etc. have little space with targeted and adjustable light openings, while major individual works and paintings, where context and breadth of view are crucial, is given larger rooms and bigger lighting openings. However, in larger rooms, the light direction is formed so that it also maintains the painting and sculpture's properties for depicting the details of form and texture. The louver system of the windows and the specially designed skylights permit the extensive use of daylight and create fairly high and uniform interior light levels throughout the building. At the same time they reduce problems of high luminance areas or veiling reflections in the work of art displayed.



Facade of the Trapholt-Art-Museum, the exterior walls are made of exposed concrete.



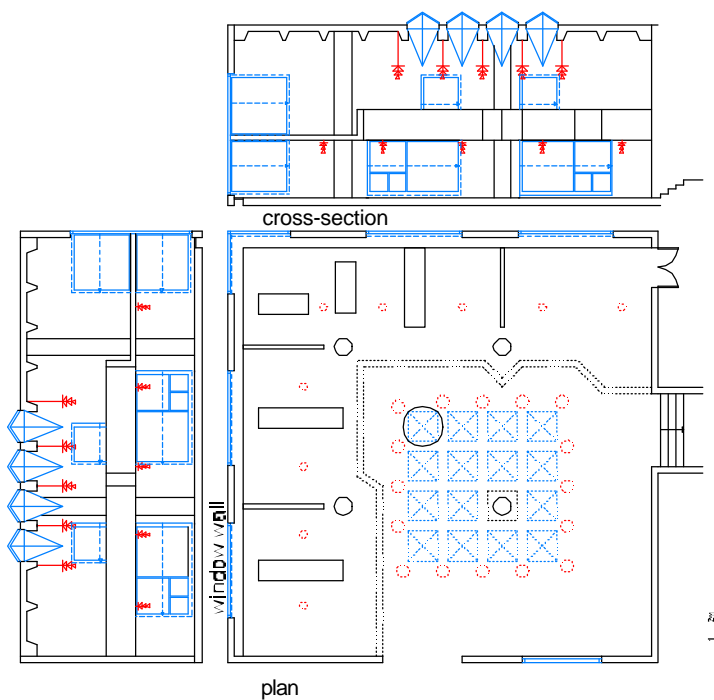
Cross-section and plan of the ground floor of the Trapholt-Art-Museum.



Interior view of an exhibition space showing the interaction between windows and skylight.



Detail of the canvas structure which shades sunlight and smoothes daylight.



#### building data

size	3085 m <sup>2</sup>
number of stories	1
architect	Boje Lundgaard, Bente Aude
daylight consultant	Sophus Frandsen
year of completion	1988, extension 1996
<b>room recorded</b>	
daylight strategy	bilateral, skylights and windows
dimensions (depth/width/height)	16,5 m / 16,5 m / 6,2 m
room area	295 m <sup>2</sup> (ground floor), 190 m <sup>2</sup> (balcony)
floor	light gray, 51%
wall	white, 84%
ceiling	concrete, gray, 19%
windows and skylights	double clear glazing, 78%
luminaire type	Louis Poulsen PH 6 ½
lamp type	incandescent lamp, 500 W
installed power density	20 W/m <sup>2</sup>
control strategy	manual switching

facade		N/A/S/N-facing windows	skylights
data	orientation	315°/135°	zenithal
	glazed area	31 m <sup>2</sup>	20,7 m <sup>2</sup>
	opening index	0,3	0,07
	daylighting	●	●
function	view outside	●	—
	ventilation	□	—
	operable	□	—
	shading	●	●
	redirection	□	●
function systems		louver	hanging prisms
function	sun shading	●	●
	glare protection	●	●
	redirection	●	●
location	inside	□	●
	window pane	□	—
	outside	□	—
	movable	●	—
	fixed	□	●